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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/720,541	11/25/2003	Jong Seok Kim	0465-1078P	4388
2292 7590 05/24/2007 BIRCH STEWART KOLASCH & BIRCH PO BOX 747 FALLS CHURCH, VA 22040-0747			EXAMINER HECKERT, JASON MARK	
			ART UNIT 1746	PAPER NUMBER
			NOTIFICATION DATE 05/24/2007	DELIVERY MODE ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

mailroom@bskb.com

Office Action Summary	Application No. 10/720,541	Applicant(s) KIM ET AL.	
	Examiner Jason Heckert	Art Unit 1746	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 February 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3 and 5-30 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3 and 5-29 is/are rejected.
- 7) ☒ Claim(s) 30 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments, see page 11, filed 3/16/07, with respect to claims 7 and 14 have been fully considered and are persuasive. The rejection under 35 U.S.C. § 112 of claims 7 and 14 has been withdrawn.
2. Applicant's arguments, see page 12, filed 3/16/07, with respect to the rejection(s) of claim(s) 1-3, 6 under 35 U.S.C. § 102 have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of a new interpretation of previously presented prior art.
3. Applicant's arguments, see page 12, filed 3/16/07, with respect to the rejection(s) of claim(s) 4-5, 7, 8, 9, 11 under 35 U.S.C. § 103 have been fully considered and are persuasive. However, upon further consideration, a new ground(s) of rejection is made in view of a new interpretation of previously presented prior art.
4. Specifically, Zinkann discloses a circular object in conduit 24 that is interpreted as being like element 5, which is disclosed as a float. This float has similar structure to many of the claims, and would operate in the same manner.

Terminal Disclaimer

1. The terminal disclaimer does not comply with 37 CFR 1.321(b) and/or (c) because:

The person who has signed the disclaimer has not stated the extent of his/her interest, or the business entity's interest, in the application/patent. See 37 CFR 1.321(b)(3).

In addition, the filing date of Application No. 10/746155 is incorrect. The correct filing date is 12-29-03. Please correct these errors.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 18 - 21 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

4. Claim 18 recites the limitation "the floating body" and "the guide". There is insufficient antecedent basis for these limitations in the claim.

5. The term "elastic" in claim 18 and 20 is a relative term which renders the claim indefinite. The term "elastic" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention. All materials possess varying degrees of elasticity. Perhaps replacing "elastic" with --shock and noise reducing—would reduce ambiguity.

Double Patenting

6. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir.

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1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

7. Claims 1 and 3 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-3 of copending Application No. 10/746154. Although the conflicting claims are not identical, they are not patentably distinct from each other because both claim a float-type valve located in the ventilation pipe of a drum-type washing machine. Both claim the same use of foam backflow prevention.

8. This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Claim Rejections - 35 USC § 102

9. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

10. Claim 1 - 5, 6, 8-10, 11, 13, 27, 28, 29 rejected under 35 U.S.C. 102(b) as being anticipated by Zinkann. Zinkann discloses a standard washing machine with a housing, tub, and drum. Also disclosed is a float disposed in the fluid inlet 24 (see figure 1). This

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float is not labeled, but it is shown as being identical to element 5, which is disclosed as a float. Both pipe 24, and conduit 2 ultimately contact an external atmosphere, and can read on ventilation pipes. The end of pipe 24 reads on a guide. Pipe 24 includes multiple elements, including a corrugated section. The float would travel up the corrugated section during backflow, but stop fluid from entering the top portion of 24, which is directly connected to the detergent supply. The figure depicts the pipe narrowing near the opening, performing the same function as a rib or disc-type plate that narrows the opening. The narrowing portion is at least equal to the cross-section of the float. The float is depicted as spherical, thereby having a concave surface.

Claim Rejections - 35 USC § 103

11. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

12. Claim 14 rejected under 35 U.S.C. 103(a) as being unpatentable over Zinkann. Zinkann discloses a float blocking a pipe thereby blocking flow. The inclusion of a flange extending from the concave surface of the float, performing the same function of blocking flow through a pipe, is not considered to be patentably distinct as it is a minor structural modification that doesn't result in a unique or inventive function. Furthermore, Furthermore, changes in shape or form have been held to be obvious. *In re Dailey* 149 USPQ 47, 50 (CCPA 1966). It would have been obvious at the time of the invention to

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modify Zinkann, and change the shape of the float, as long as the same function of blocking flow is achieved.

13. Claim 7, 12, 15-17, 22-26 rejected under 35 U.S.C. 103(a) as being unpatentable over Zinkann in view of Brauer. Zinkann discloses a float capable of flow regulation in the water inlet of a washing machine. Zinkann does not disclose the spacial relationship for claim 7. However, many float valves are known in the art and are known to provide backflow prevention. Brauer discloses a float valve assembly of general applicability. This float valve discloses a concave portion 14 that is greater in diameter than the pipe it blocks, yet smaller in diameter than an open portion of the pipe 12. When disposed in the open portion, flow is allowed. Further, this assembly includes a hub like structure comprising ribs 32 that support a guide 30 into which a shaft part 34 fits. These ribs slant upwards towards the center of the hub-like structure as disclosed by the applicant. Brauer does not disclose a hollow shaft, yet discloses a hollow valve and preference for a buoyant body (col. 2 lines 60-66) thereby obviating a hollow shaft. It would have been obvious at the time of the invention to modify Zinkann and include a float-valve with the features of Brauer, as it is a known functionally equivalent device to prevent backflow.

14. In regards to claim 22-26, as stated previously, Brauer discloses both a shaft and shaft guide. However, he does not disclose the tapering of the guide and shaft as discussed in said claims. Changes in shape or form have been held to be obvious. *In re Dailey* 149 USPQ 47, 50 (CCPA 1966). Tapering the shaft and guide is nothing more than a change shape that achieves the same function of allowing the float to rise in a

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guided manner. It would have been obvious at the time of the invention, to change the shape of the shaft, as long as the same function of guiding the float to block flow is achieved.

Allowable Subject Matter

15. Claim 30 objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. The plate structure with a leg and hook was not found in the prior art.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jason Heckert whose telephone number is (571) 272-2702. The examiner can normally be reached on Mon. to Friday, 8:00 - 5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Barr can be reached on (571)272-1414. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

JMH

A handwritten signature in black ink, appearing to read "Michael G. Barr", with a large, sweeping flourish at the end.

MICHAEL BARR
SUPERVISORY PATENT EXAMINER

